



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON NUCLEAR WASTE
WASHINGTON, DC 20555 - 0001

July 22, 2005

(REVISED)

AGENDA
162nd ACNW MEETING
August 2-4, 2005

TUESDAY, AUGUST 2, 2005, CONFERENCE ROOM T-2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

- 1) 08:30 - 08:40 A.M. **Opening Remarks by the ACNW Chairman (Open)(MTR/JTL)**
The Chairman will make opening remarks regarding the conduct of today's sessions.

WORKING GROUP MEETING ON WASTE DETERMINATIONS, DAY 1 of 2 (OPEN)

Session 1: Introduction and Background (ACNW Moderator: Allen Croff)

- 2) 08:40 - 08:55 A.M. **Introduction to Working Group Meeting and Session 1 (AGC/LH)**
The ACNW Moderator will discuss the purpose of the WG meeting and provide an overview of the meeting as well as the purpose and scope of Session 1. Invited experts will also be introduced.
- 3) 08:55 - 09:55 A.M. **Overview of DOE's Approach to Managing Tank Waste (Ken Picha/DOE/EM)**
DOE staff will provide an overview of DOE's current and planned management of tank waste at its four tank sites, including waste handling practices, waste streams likely to require waste determinations, and the characteristics of these streams.

09:55 - 10:10 A.M. *BREAK*****

- 4) 10:10 - 11:10 A.M. **History and Background on NRC Involvement in Waste Determinations (Anna Bradford/NMSS/NRC)**
NRC staff will provide an overview of NRC's involvement in waste determination evaluations, including NRC's experience with waste determinations, a summary of new waste determination provisions in the National Defense Authorization Act of 2005, and anticipated waste determination activities.
- 5) 11:10 - 11:25 A.M. **Outline for the Remaining Sessions (AGC/LH)**
The ACNW Moderator will discuss outline and structure of the rest of the Working Group Meeting.

Session 2: Waste Retrieval and Processing Technology (ACNW Moderator: Allen Croff)

- 6) 11:25 - 11:30 A.M. **Overview of Session 2**
The ACNW Moderator will provide an overview of the purpose and scope of Session 2.
- 7) 11:30 - 12:00 P.M. **Status of Fluidic Technology for Retrieving Waste from Tanks (Paul Murray/AEA Technology Engineering Services, Inc.)**
Dr. Murray will address state-of-the-art and research and development (R&D) concerning retrieval techniques using pressurized water.
- 12:00-01:00 P.M. ***LUNCH*****
- 8) 01:00 - 01:30 P.M. **Status of Robotic Technology for Retrieving Waste from Tanks (Barry Burks/TPG Applied Technology)**
Dr. Burks will address state-of-the-art and R&D concerning retrieval techniques using robotic devices.
- 9) 01:30 - 01:45 P.M. **Perspectives on the Definition of “Highly Radioactive Waste” for the Purposes of NDAA (David Kocher/SENES/ACNW Consultant)**
Dr. Kocher will give a historical perspective on the definition of “highly radioactive waste” both in the regulations as well as in practice.
- 10) 01:45 - 02:30 P.M. **Status of Technology for Removing Common Target Radionuclides from Waste (Ken Gasper/DOE ORP, Retired)**
Dr. Gasper will discuss radionuclides commonly targeted for removal from the waste tanks.
- 11) 02:30 - 03:00 P.M. **Status of Technology for Characterizing Tank Heels (John Plodinec/Diagnostic Instrumentation and Analysis Laboratory)**
Dr. Plodinec will discuss the technology for determining the amount, composition, and distribution of tank heels.
- 03:00 - 03:15 P.M. ***BREAK*****
- 12) 03:15 - 04:15 P.M. **Roundtable Discussion (All)**
This part of the meeting will involve a roundtable discussion pertaining to Session 2 topics.

Session 3: Waste Disposal & Performance Assessment (ACNW Moderator: Allen Croff)

- 13) 04:15 - 04:20 P.M. **Overview of Session 3**
The ACNW Moderator will provide an overview of the purpose and scope of Session 3.
- 14) 04:20 - 05:00 P.M. **Status of Technology for Using Cementitious Materials to Stabilize Wastes (Les Dole/Oak Ridge National Lab)**
Dr. Dole will discuss the use of grouts for tank closure and low-activity waste (LAW), including experience in long-term durability of grouts, and effects of waste materials on durability of grouts.

05:00 P.M. Adjourn Day 1, Working Group Meeting

WEDNESDAY, AUGUST 3, 2005, CONFERENCE ROOM T-2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

- 15) 08:30 - 08:35 A.M. **Opening Remarks by the ACNW Chairman (Open)(MTR/JTL)**
The Chairman will make opening remarks regarding the conduct of today's sessions.

WORKING GROUP MEETING ON WASTE DETERMINATIONS, DAY 2 of 2 (OPEN)

Session 3: Waste Disposal & Performance Assessment (ACNW Moderator: Allen Croff) [continued from previous day]

- 16) 08:35 - 09:05 A.M. **Status of Technology for Predicting the Durability of Cementitious Materials (Ed Garboczi/NIST)**
Dr. Garboczi will address the status and prospects of predicting durability of grouts.
- 17) 09:05 - 09:50 A.M. **Performance Assessment Perspectives for Onsite Waste (David Kocher/SENES/ACNW Consultant)**
Mr. Kocher will discuss key features of a performance assessment as they relate to onsite disposal of LAW and filled tanks.

09:50 - 10:05 A.M. *BREAK*****

- 18) 10:05 - 10:35 A.M. **Decisionmaking Considerations in Waste Determinations (Anne Smith/Charles River Associates International)**
Dr. Smith will address factors and practical approaches to make decisions with regard to waste determinations, including removal of radionuclides to the maximum extent practical and meeting the as low as reasonably achievable (ALARA) requirement.

- 19) 10:35 - 11:35 A.M. **Roundtable Discussion of Disposal Methods and Performance Assessment (All)**
This part of the meeting will involve a roundtable discussion pertaining to Session 3 topics.

Session 4: Monitoring Onsite Waste Disposal (ACNW Moderator: Allen Croff)

- 20) 11:35 - 11:40 A.M. **Overview of Session 4**
The ACNW Moderator will provide an overview of the purpose and scope of Session 4.
- 21) 11:40 - 12:25 P.M. **Status of Technology for Environmental Monitoring of Onsite Waste Disposal (Vernon Ichimura/Chem-Nuclear Systems)**
This presentation will address environmental monitoring issues including establishing the baseline, and detection and compliance monitoring of groundwater and air as it relates to waste disposed on site.

12:25 - 01:25 P.M. *LUNCH*****

- 22) 01:25 - 02:10 P.M. **Status of Engineered Barrier Design and Monitoring Technology for Onsite Waste Disposal (Craig Benson/University of Wisconsin)**
Dr. Benson will discuss the technology status of caps and subsurface barrier walls, including durability issues, and the monitoring of cap performance.
- 23) 02:00 - 02:55 P.M. **Status of Non-Destructive Monitoring Technology for Massive Near-Surface Cementitious Waste Forms (Randy Poston/WDP & Associates)**
Dr. Poston will discuss the status of technology for non-destructive monitoring of massive grout waste forms such as the tank fill and grouted LAW.

02:55 - 03:10 P.M. *BREAK*****

- 24) 03:10 - 04:40 P.M. **Roundtable Discussion of Onsite Waste Disposal Monitoring**
This part of the meeting will involve a roundtable discussion of Session 4 topics plus topics from other sessions as they relate to the waste determination provisions in SEC. 3116 of the NDAA.
- 25) 04:40 - 05:00 P.M. **ACNW Discussion of WG Meeting Findings**
The ACNW members will discuss the main thoughts and findings of the Working Group meeting, and a potential letter/report to the Commission.

05:00 P.M. Adjourn Working Group Meeting

THURSDAY, AUGUST 4, 2005, CONFERENCE ROOM T-2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

- 26) 10:15 - 11:30 A.M. **Discussion of Current Letters/Reports** (Open) (All)
The Committee will discuss prepared draft letters and reports:
- 1) April 2005 Center for Nuclear Waste Regulatory Analyses Program Review (RFW/RPS)
 - 2) NRC Office of Nuclear Regulatory Research Generic Waste-Related Research (RFW/RPS)
 - 3) Risk-Informing Nonreactor Activities(JHC/JHF)

11:30 - 12:45 P.M. *LUNCH*****

- 27) 12:45 - 3:45 P.M. **Status of Repository Design Issues** (Open) (WJH/MPL)
NRC Staff will brief the Committee on issues related to the design of a geologic repository at Yucca Mountain, Nevada. The general areas to be addressed are: "NRC Staff Views on the Sufficiency of Current U.S. Department of Energy (DOE) Level of Design Detail;" "Recent NRC Staff Visits to Spent Nuclear Fuel Handling Facilities in France (Cogema), and the United States (Idaho and Washington)," and "Status of Development of NRC's Pre-Closure Safety Assessment Tool."

03:45 - 04:00 P.M. *BREAK*****

- 28) 04:00 - 04:45 P.M. **ACNW Low-Level Waste White Paper: Draft 3** (Open) (MTR/SAS)
The Committee will comment on the third draft of the white paper on low-level waste.
- 29) 04:45 - 05:15 P.M. **Miscellaneous** (Open)
The Committee will discuss matters related to the conduct of ACNW activities and specific issues that were not completed during previous meetings, as time and availability of information permit. Discussions may include future Committee meetings.

05:15 P.M. ADJOURN

NOTES:

- Presentation time should not exceed 50 percent of the total time allocated for a specific item. The remaining 50 percent of the time is reserved for discussion.
- **Fifty (50) hard copies and one (1) electronic copy of the presentation materials should be provided to the ACNW.**
- ACNW meeting schedules are subject to change. Presentations may be canceled or rescheduled to another day. If such a change would result in significant inconvenience or hardship, be sure to verify the schedule with Ms. Sharon Steele at 301-415-6805 between 8:00 a.m. and 4:00 p.m. prior to the meeting.